

# GHDL (VHDL Compiler and Simulator)

## Installation Instructions

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- Please bring your laptops to the tutorial session on Verilog/VHDL on Saturday 14th July.
- Also perform the installation before hand. If you face any difficulties you can contact me on the aforementioned email id.

### Ubuntu 16.04 Onwards<sup>1</sup>

Run the following commands in the directory where the file `INSTALL_16.sh` is present:

```
sudo chmod 777 INSTALL_16.sh
sudo ./INSTALL_16.sh
```

The script has been tested successfully on Ubuntu 18.04 systems. Requires Internet Connectivity.

### Ubuntu 14.04<sup>2</sup>

Run the following commands in the directory where the file `INSTALL_14.04.sh` is present:

```
sudo chmod 777 INSTALL_14.04.sh
sudo ./INSTALL_14.04.sh
```

The script has been tested successfully on Ubuntu 14.04 systems. Requires Internet Connectivity.

### Windows<sup>3</sup>

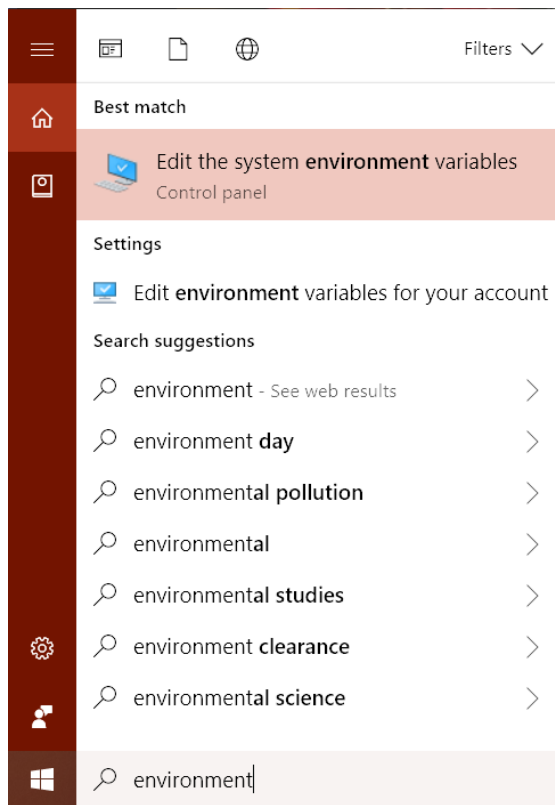
- Extract `ghdl-0.35-mcode-windows.zip` into a folder such that the path to it does not have any spaces. In the following instructions the folder path is assumed to be `C:\Programs\GHDL\`.
- After extractions the folder should contain three folders `bin`, `lib` and `include`. The `bin` folder should've the path: `C:\Programs\GHDL\bin\`
- Similarly for another software “gtkwave”, extract `gtkwave-3.3.91-bin-win64.zip` into a folder such that the path to it does not have any spaces. In the following instructions the folder path is assumed to be `C:\Programs\gtkwave64\`.
- After extractions the folder should contain three folders `bin`, `lib` and `share`. The `bin` folder should've the path: `C:\Programs\gtkwave64\bin\`
- The `bin` folder of both must be added to the path. Images for each step follow.
  - Step 1: Search for Editing Environment Variables
  - Step 2: Click Environment Variables
  - Step 3: Choose Local Path and Click Edit
  - Step 4: Add the line `C:\Programs\GHDL\bin\` and `C:\Programs\gtkwave64\bin\` to the Path. Check using `ghdl --version` and `gtkwave` on Powershell or CMD

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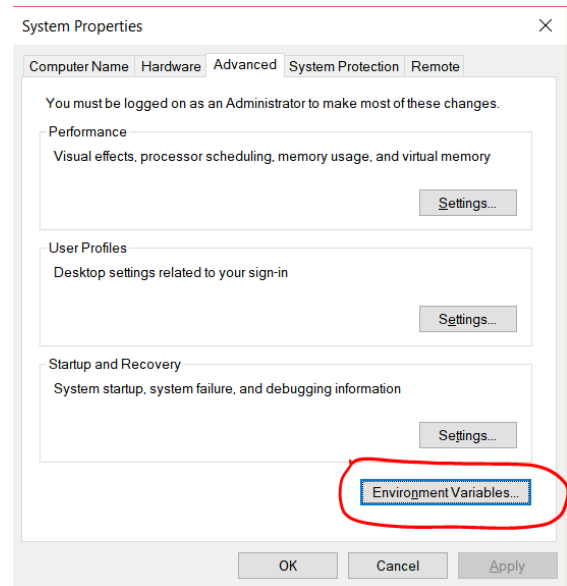
<sup>1</sup>Strongly Recommended

<sup>2</sup>Upgrade to 16.04 or 18.04 is suggested

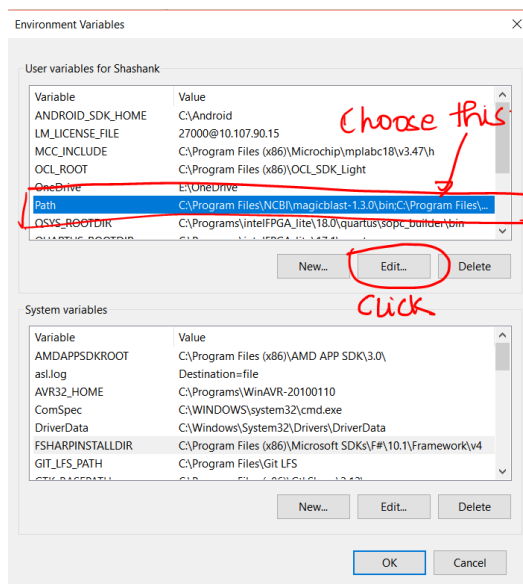
<sup>3</sup>Good enough until you can get a Ubuntu Installation



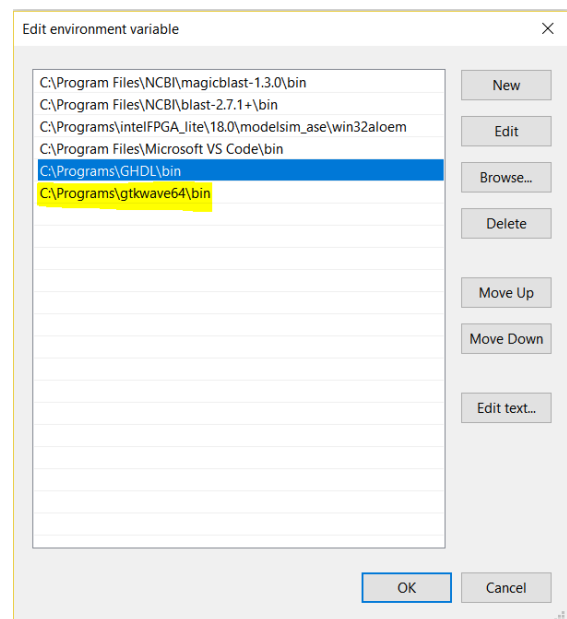
Step 1



Step 2



Step 3



Step 4